



Connecting Research,
Policy and Practice

PISA Assessment Items

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What are the PISA Assessments Like?

- What knowledge and skills are assessed?
- How are these assessed?



What Knowledge and Skills are Assessed?

PISA as a Literacy Assessment

- PISA assesses applied knowledge/literacy:
 - *How well can students nearing the end of compulsory schooling apply their knowledge to real-life situations?*
 - *How well-prepared are students for success in the future?*
- Content knowledge not limited to school-based curricula
 - Assessments measure learning in and out of school



PISA 2012 Assessments

Core

- Mathematics, reading, and science literacy (paper-based)
- Problem-solving (computer-based)

International Options

- Computer-based mathematics and reading
- Financial literacy (paper-based)



How are These Assessed?

- Items presented in “units”
 - Typically, 2-5 items based on a stimulus
- Stimuli drawn from or modeled on authentic material
- Items presented in situations/contexts
 - Mathematics: Personal, Occupational, Societal, Scientific
- Items typically ask students to use or apply knowledge/skills to solve a problem, perform a task
- Use multiple-choice, short or “closed” constructed-response, open constructed-response items



Mathematics Literacy

Mathematics literacy is...

an individual's capacity to formulate, employ, and interpret mathematics in a variety of contexts. It includes reasoning mathematically and using mathematical concepts, procedures, facts, and tools to describe, explain, and predict phenomena. It assists individuals to recognize the role that mathematics plays in the world and to make the well-founded judgments and decisions needed by constructive, engaged and reflective citizens.



Mathematics Unit Example

Skateboard – Question 2 (M520Q01)



Science Literacy

Science literacy is...

an individual's scientific knowledge and use of that knowledge to identify questions, to acquire new knowledge, to explain scientific phenomena, and to draw evidence-based conclusions about science-related issues, understanding of the characteristic features of science as a form of human knowledge and enquiry, awareness of how science and technology shape our material, intellectual, and cultural environments, and willingness to engage in science-related issues, and with the ideas of a science, as a reflective citizen.



Science Unit Example

Sunscreen (S447Q02)



Reading Literacy

Reading Literacy is...

an individual's capacity to understand, use, reflect on, and engage with written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society.



Reading Unit Example

Cell Phone Safety (R14Q02)



Financial Literacy

Financial literacy is...

knowledge and understanding of financial concepts, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life.



Financial Literacy Unit Example

At the Market



Problem Solving

Problem Solving is...

an individual's capacity to engage in cognitive processing to understand and resolve problem situations where a method of solution is not immediately obvious. It includes the willingness to engage with such situations in order to achieve one's potential as a constructive and reflective citizen.



Questions?